

CLAIMS

1. An apparatus for lifting a wheelchair from a first location to a second location generally above the first location, transporting the wheelchair to a third location, and moving the wheelchair to a fourth location comprising:

a lift assembly for moving the wheelchair from the first location to the second location, said lift assembly including an upright first member and an upright second member movably mounted on the first member, a first linear actuator connected to the first and second members operable to selectively raise and lower the second member relative to the first member, a platform for supporting the wheelchair, a coupling member secured to the platform and second member adapted to be connected to the wheelchair, a transport assembly connected to the first member for moving the lift assembly and platform from the second location to the third location, said transport assembly including a first beam adapted to be connected to a support and a second beam movably mounted on the first beam to extended and contracted positions, said second beam being secured to said first member of the lift assembly; a second linear actuator connected to the first and second beams operable to selectively move the second beam between extended and contracted positions thereby moving the lift assembly and platform from the second location to the third location, anchors located in the fourth location adapted to be secured to the support for holding the platform, said first actuator being operable to move the platform from the third location into engagement with the anchors and retain the platform in the fourth location.

2. The apparatus of Claim 1 wherein: the first and second members are first and second tubular members, said first linear actuator being located within and connected to the first and second tubular members.

3. The apparatus of Claim 1 including: a headrest connected to the first member of the lift assembly.

4. The apparatus of Claim 3 wherein: the headrest includes a generally horizontal member, means connecting the horizontal member to the first member of the lift assembly, an upright plate connected to the horizontal member, and at least one pad mounted on the plate.

5. The apparatus of Claim 1 wherein: the platform has a plurality of holes accommodating the anchors.

6. The apparatus of Claim 5 wherein: the anchors include upright pins having upper ends located in said holes and nuts threaded on the pins for supporting the platform.

7. The apparatus of Claim 1 wherein: said coupling member includes a generally horizontal slot and a stop bolt extended through the slot and secured to the coupling member, said stop bolt being operable to limit movement of the wheelchair on the platform.

8. The apparatus of Claim 1 wherein: said coupling has a generally horizontal top wall having inwardly converging inside edges providing a generally V-shaped mouth and a linear slot open to the mouth adapted to accommodate anchor bolts attached to the wheelchair, and a stop bolt extended through the slot and secured to the top wall, said stop bolt being engaged by the anchor bolts to limit movement of the wheelchair on the platform.

9. The apparatus of Claim 1 wherein: the first and second beams are first and second box beams, said second linear actuator being located within and connected to said first and second box beams.

10. An apparatus for locating a wheelchair in a driver's position of a motor vehicle having a floor and a door comprising:

a lift assembly for moving a wheelchair from a ground first location adjacent a side of the vehicle to a second location generally above the first location, said lift assembly including an upright first member and an upright second member movably mounted on the first member, a first linear actuator connected to the first and second members operable to selectively raise and lower the second member relative to the first member, means connecting the door to the first member, a platform for supporting the wheelchair, a coupling member secured to the platform and second member adapted to be connected to the wheelchair, a transport assembly connected to the first member for moving the lift assembly, platform and door from the second location to a third location within the vehicle, said transport assembly including a first beam and a second beam movably mounted on the first beam to extended and contracted positions, means mounting the first beam on the floor of the vehicle, means securing the second beam to the first member of the lift assembly, a second linear actuator connected to the first and second beams operable to selectively move the second beam between extended and contracted positions thereby moving the lift assembly, platform and door from the second location to the third location, anchors located in a fourth location secured to the floor for supporting the platform to locate a wheelchair on the platform in the driver's position

of the vehicle, said first actuator being operable to move the platform and door from the third position to the fourth position and retain the platform and door in the fourth position.

11. The apparatus of Claim 10 wherein: the first and second members are first and second tubular members, said first linear actuator being located within and connected to the first and second tubular members.

12. The apparatus of Claim 10 including: a headrest connected to the first member of the lift assembly.

13. The apparatus of Claim 12 wherein: the headrest includes a generally horizontal member, means connecting the horizontal member to the first member of the lift assembly, an upright plate connected to the horizontal member, and at least one pad mounted on the plate.

14. The apparatus of Claim 10 wherein: the platform has a plurality of holes accommodating the anchors.

15. The apparatus of Claim 14 wherein: the anchors include upright pins having upper ends located in said holes and nuts threaded on the pins for supporting the platform.

16. The apparatus of Claim 10 wherein: said coupling member includes a generally horizontal slot and a stop bolt extended through the slot and secured to the coupling member, said stop bolt being operable to limit movement of the wheelchair on the platform.

17. The apparatus of Claim 10 wherein: said coupling has a generally horizontal top wall having inwardly converging inside edges providing a generally V-shaped mouth and a linear slot open to the mouth adapted to accommodate anchor bolts attached to the wheelchair, and a stop bolt extended through the slot and secured to the top wall, said stop bolt being engaged by the anchor bolts to limit movement of the wheelchair on the platform.

18. The apparatus of Claim 10 wherein: the first and second beams are first and second box beams, said second linear actuator being located within and connected to said first and second box beams.

19. An apparatus for lifting an object from a first location to a second location generally above the first location, transporting the object to a third location, and moving the object to a fourth location comprising:

a lift assembly for moving the object from the first location to the second location, said lift assembly including an upright first member and an upright second member movably mounted on the first member, a first linear actuator connected to the first and second members operable to selectively raise and lower the second member relative to the first member, a platform for supporting the object, a coupling member secured to the platform and second member adapted to be connected to the object, a transport assembly connected to the first member for moving the lift assembly and platform from the second location to the third location, said transport assembly including a first beam adapted to be connected to a support and a second beam movably mounted on the first beam to extended and contracted positions, said second beam being secured to said first member of the lift assembly, a second linear actuator connected to the first and second beams operable to selectively move the second beam between extended and contracted positions thereby moving the lift assembly and platform from the second location to the third location, anchors located in the fourth location adapted to be secured to the support for holding the platform, said first actuator being operable to move the platform from the third location into engagement with the anchors and retain the platform in the fourth location.

20. The apparatus of Claim 19 wherein: the first and second members are first and second tubular members, said first linear actuator being located within and connected to the first and second tubular members.

21. The apparatus of Claim 19 wherein: the object is a motor vehicle seat.

22. The apparatus of Claim 21 including: a headrest connected to the first member of the lift assembly.

23. The apparatus of Claim 22 wherein: the headrest includes a generally horizontal member, means connecting the horizontal member to the first member of the lift assembly, an upright plate connected to the horizontal member, and at least one pad mounted on the plate.

24. The apparatus of Claim 19 wherein: the platform has a plurality of holes accommodating the anchors.

25. The apparatus of Claim 24 wherein: the anchors include upright pins having upper ends located in said holes and nuts threaded on the pins for supporting the platform.

26. The apparatus of Claim 19 wherein: said coupling member includes a generally horizontal slot and a stop bolt extended through the slot and secured to the coupling member, said stop bolt being operable to limit movement of the object on the platform.

27. The apparatus of Claim 19 wherein: said coupling has a generally horizontal top wall having inwardly converging inside edges providing a generally V-shaped mouth and a linear slot open to the mouth adapted to accommodate anchor bolts attached to the object, and a stop bolt extended through the slot and secured to the top wall, said stop bolt being engaged by the anchor bolts to limit movement of the object on the platform.

28. The apparatus of Claim 19 wherein: the first and second beams are first and second box beams, said second linear actuator being located within and connected to said first and second box beams.

29. A lift assembly for selectively raising and lowering a wheelchair comprising:
a platform for supporting a wheelchair, a lift connected to the platform operable to selectively raise and lower the platform, and a headrest mounted on the lift for a person in a wheelchair located on the platform.

30. The lift assembly of Claim 29 including: a coupling member secured to the platform and lift adapted to be connected to the wheelchair.

31. The lift assembly of Claim 30 wherein: said coupling member includes a generally horizontal slot and a stop bolt extended through the slot and secured to the coupling member, said stop bolt being operable to limit movement of the wheelchair on the platform.

32. The apparatus of Claim 31 wherein: said coupling has a generally horizontal top wall having inwardly converging inside edges providing a generally V-shaped mouth and a linear slot open to the mouth adapted to accommodate anchor bolts attached to the wheelchair, and a stop bolt extended through the slot and secured to the top wall, said stop bolt being engaged by the anchor bolts to limit movement of the wheelchair on the platform.

33. The lift assembly of Claim 29 wherein: the lift includes an upright tubular first member having an upper end and a second tubular member movably mounted on the first member, said second tubular member having a lower end secured to the platform, and a linear actuator connected to the first and second members operable to selectively raise and lower the platform.

34. The lift assembly of Claim 33 wherein: the linear actuator is located with the tubular first and second members, and means connecting the linear actuator to the first and second members.

35. The lift assembly of Claim 29 wherein: the headrest includes a member mounting the headrest on the upper end of the first member.

36. The lift assembly of Claim 29 wherein: the headrest includes a generally horizontal member, means mounting the horizontal member on the upper end of the first member, an upright plate connected to the horizontal member, and at least one pad mounted on the plate.

37. The lift assembly of Claim 36 wherein: a pair of pads are mounted on the plate.